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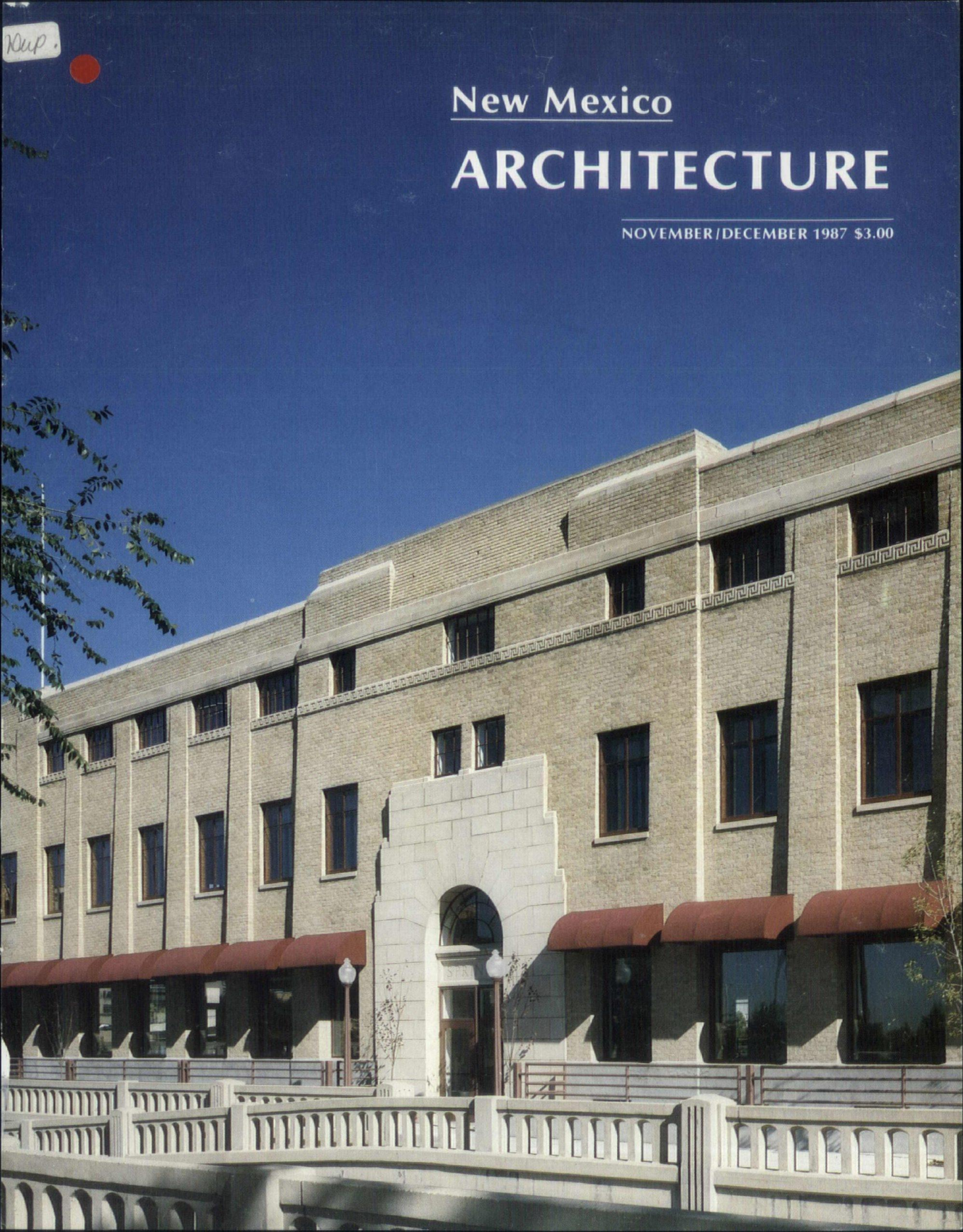
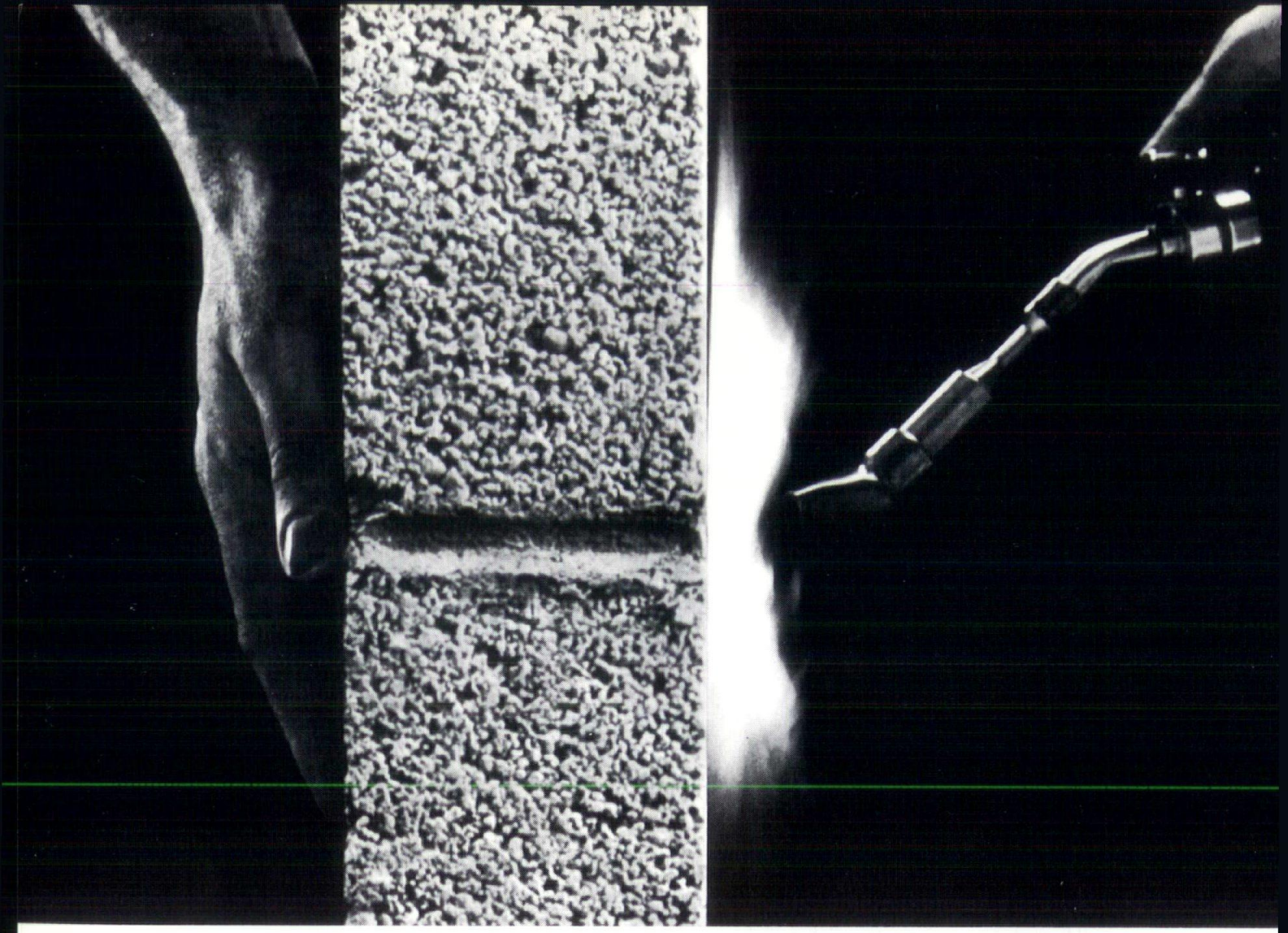
New Mexico ARCHITECTURE

NOVEMBER/DECEMBER 1987 $3.00





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nma

• *vol. 28 no. 6* • *nov.-dec. 1987* • *new mexico architecture*

In this issue,

Author John Wyckoff describes his own house and the design process that produced the final results. The gates, above, give access to the fountain dominated entry patio. The article begins on page 9.

Beginning on page 12, Edna Heatherington, Albuquerque historian, introduces our readers to the influence of ancient Mayan architecture on New Mexico's architectural heritage with the story of two Albuquerque buildings that have recently undergone renovation and restoration.

This issue of *New Mexico Architecture* completes another year of publication, the 28th. We expect the 29th year to be as successful as was the 28th.

I have found a gem of advertising prose. In a recent advertisement was this fascinating revelation: "Long before time there were the mountains".

And on the front page of the Santa Fe *New Mexican* of November 25, 1987 we see printed in bold type: "Carruthers backs Bush as GOP nominee". The article was continued on page A-5 under this bold heading: "Carruthers endorses Dole as nominee". As you read the article you will find the facts; Governor Carruthers did, indeed, endorse Vice-President Bush for the nomination. One frequently wonders if any one at the *New Mexican* ever reads the copy before the newspaper goes to press.

The cover of this issue of *NMA* has been sponsored by Dekker & Associates, architects for the renovation of the Springer Building. We are ever indebted to those fine people who have made these full color covers possible, and to the professional photographers whose excellent work has made each cover so handsome. *JPC*

(Cover — Springer Building, Albuquerque, N.M. — © Robt. Ames Cook, Photographer

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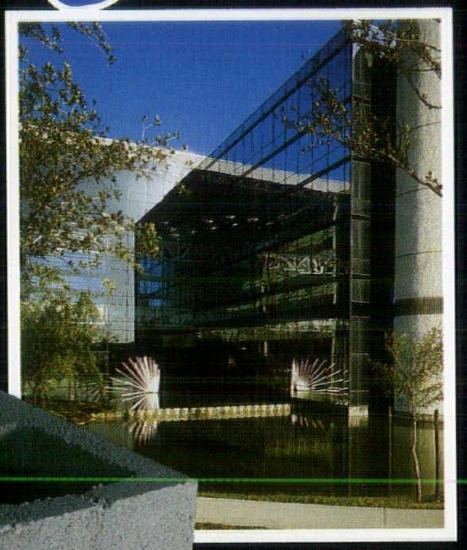
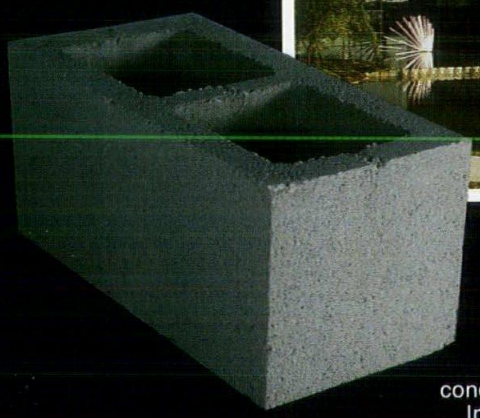
Alluring



GRAY BLOCK



Hyatt Regency West
Houston, Texas

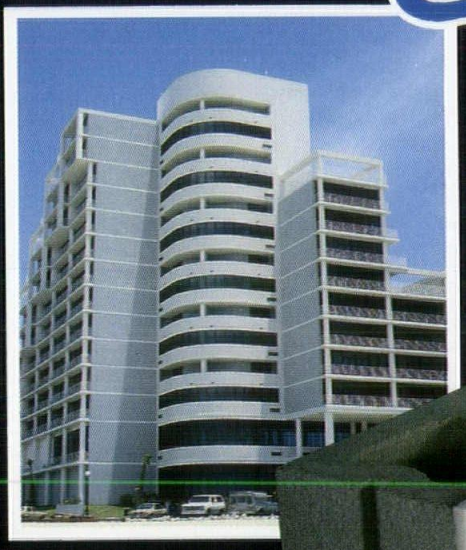
This iridescent structure is a meticulous blend of load-bearing concrete masonry and glass. In fact, all but the first floor features standard 8" lightweight, gray block reinforced and grouted forming the load-bearing masonry walls.

The Best Kept Secret about this shimmering structure is the time and money the Owners and Architects saved with a concrete masonry solution.

By using load-bearing concrete masonry with a precast concrete floor, over one million dollars was saved and three months knocked off of the 17 month construction schedule, making this the fastest hotel built for the Hyatt Corporation.

Finishing details of this 400 room structure were accomplished by a granite and glass overlay ensuring the rich design of this hotel and making concrete masonry the Best Kept Secret of the Hyatt Regency West Houston.

For more information request "The Best Kept Secret" brochure.



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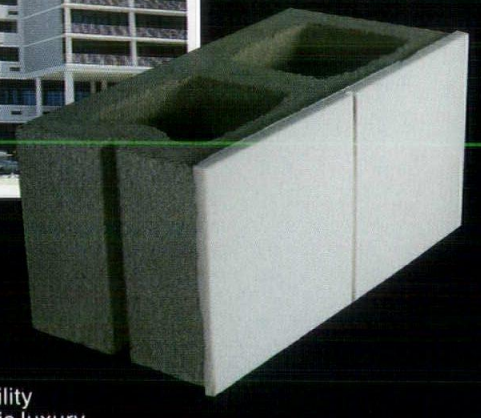

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Spectra-Glaze® is the Architect's glaze of choice.

Permanence and Durability inspired the design of this luxury condominium project on the beach front.

White scored Spectra-Glaze® units were chosen to accent the form of two towers of the exterior stairwells as well as public interior areas of the building. The elevator shaft is located behind the radius walls. Public interior areas that used Spectra-Glaze® include the lobby and the interior and exterior of the bar-lounge.

The condo is a reinforced concrete frame with in-fill walls of reinforced gray block. Radius walls are Spectra-Glaze® with one score giving an 8x8 pattern to the block. All 8" Spectra-Glaze® units were reinforced and grouted solid to withstand hurricane force winds and rain while providing attractive, long lasting, maintenance free surfaces.

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THE RAFFLE SUCCEEDED!

BENEFIT WILL HELP NEW MEXICO ARCHITECTURE

by Edna E. Heatherington, CSI, CCS

Left to Right: Barbara Buell (wife of winner); Chelsea Buell (daughter of winner); Reed Buell (NMSA winner); BMW 535i in background; Tom Tennies, Photographer.

For the architects who spent the summer of 1987 learning the techniques of direct sales, the BMW Raffle may be remembered as a difficult or an educational experience, but all of us who appreciate *New Mexico Architecture* can rejoice in the success of the raffle. The winner, Reed Buell of Zeon Signs, has received his car with pleasure, and Van Dorn Hooker, Chairman of the Magazine Committee has taken the first check, for $25,000, to the long time printer Tom Hall, of Hall-Poorbaugh Press in Roswell, N.M.

Buell was not present at the drawing, which was a part of the New Mexico Society of Architects Design Conference in October, and when Connie Holmes finally reached Buell's wife, Barbara, by phone, she did not believe the news. Eventually, however, the Buells visited Sandia BMW, and enjoyed having the publicity photos taken under a sign made by Zeon for the dealership.

New Mexico Architecture, edited almost from its inception by John Conron, FAIA, FASID, has always operated on the shoestring typical for a publication which depends on volunteer efforts. During a period when John had particularly heavy burdens in his personal and professional life, and Mildred Brittelle retired from her volunteer position as circulation manager and general assistant, publication became irregular, but Tom Hall supported the magazine by carrying the account. Debt mounted up.

In 1984, Van Dorn organized a committee to support and advise the magazine, including Carleen Lazzell, who took on the tasks of Associate Editor and Advertising Director. Starting that November, Carleen assisted John in getting out the January-February issue for 1985, and not an issue has been missed since.

The magazine operates with about $15,000 in outstanding accounts receivable, of which some are aged accounts, and with each bi-monthly issue, a "moving target" of publishing costs and advertising revenues continues. Part of an issue's cost are paid by sponsorship of the cover photograph, but all other revenues are from advertising.

It appears that a total of about $29,000 will come to the magazine from the raffle. The fundraising event was planned by Van Dorn and the committee. The prize offered a BMW 535i with roundtrip airfare for two to Europe, along with preparation of the car for U.S. use and transportation, gross receipts tax, and license fees. Tickets at $95 each were limited to a total sale of 999; 828 were sold.

Ten teams of architects and others recruited by team leaders accepted the tickets and posters. Bob Turner of the Boehning Partnership was Raffle Chairman. He led sales meetings and distributed badges to ticket sellers, and reported progress and offered advice at monthly AIA chapter meetings. Progress was slow. Participants exchanged stories of successful and unsuccessful attempts to sell, and learned that it is essential to identify and call every possible prospect. Next, they learned the importance of following up and talking in person with those who'd expressed an interest. $95 isn't an impulse purchase for most people; the prize was universally attractive, but often the clincher would be the fact that the proceeds would go to help the magazine

Going into the last two weeks, fewer than 500 tickets had been sold. People who had been working on the project for months were discouraged. Bob attributes the final burst of energy to the foresight and encouragement of Connie Holmes, wife of Jesse Holmes of Holmes, Sabatini and Eeds, who told the teams that it is typical to sell more than half in the final weeks of an event like this, and got them out following up and clinching sales.

Sixty-eight people were on the teams, working in Albuquerque and in the northern and southern parts of the state. There were prizes for the team and the individual selling the greatest number. Nineteen people sold ten or more, and twelve who sold twenty or more, received free tickets for themselves. Bill Sabatini, of Holmes, Sabatini, and Eeds, led the winning team which sold 172, and won a trip for two to San Francisco, with a stay at a hotel and a bay cruise. Van Dorn Hooker's 73 was the highest number sold by an individual, and he wins a trip for two to any U.S. destination.

The prize BMW itself turned out to be somewhat elusive; the 535i was out of production when Sandia BMW called the European factory. The agency and the committee worked out some alternatives to offer to the prizewinner, including the 535i in stock at the showroom. When Buell got into the car, he wanted it immediately, and accepted it along with a trip to Europe and $2,000 spending money, which the Buells will enjoy next spring.

The success of the raffle will renew the spirits and energy of the magazine committee. There are about twenty states which have magazines like *NMA;* most larger states have paid editorial staffs. Magazines comparable to ours in size and scope are published in Iowa, New Jersey, and Tennessee, all states with greater populations than New Mexico. The volunteer magazine depends on editorial and pictorial contributions by architects who are willing and able to report on the work of which they are proud, and other stories they have to tell about practice and about the built environment, as well as articles from historians and other related researchers. As the publication of the state society, it reports on the awards given at the annual Design Conference, as well as other awards. *E.E.H.*

Edna E. Heatherington, CSI, CCS, has her own consulting firm, Heatherington & Schaller Information Management. She offers writing, specifying, and technical information management services to architects, engineers, and other construction industry clients.

A NEGATIVE LOOK AT POSITIVE SOLAR

by John Wyckoff

For many years Marj and I dreamed of retiring in the Southwest in a real adobe house. So, in 1983, we came to Albuquerque from Southern California to purchase property and hire an architect. We visited the Earth Systems Exposition and met Jack Belcher. We found him to be one of New Mexico's finest and most knowledgable solar adobe architects. After visiting and staying with him in his own solar adobe home in the quaint village of Corrales, we knew he was to become the architect/designer for our "dream home." We were very impressed with his designs and the ease in which he was able to incorporate all of our ideas, and his, into our Southwest home. We attended the Southwest Adobe School, under the heslpful eye of New Mexico's foremost hands-on teacher, Joe Tibbets, and developed more ideas. Jack suggested we compile a notebook of what we wanted and turn it over to him. We told him we did not want a big house; just a high quality, comfortable, efficient, Southwestern, solar home that looked like it would stand for many years.

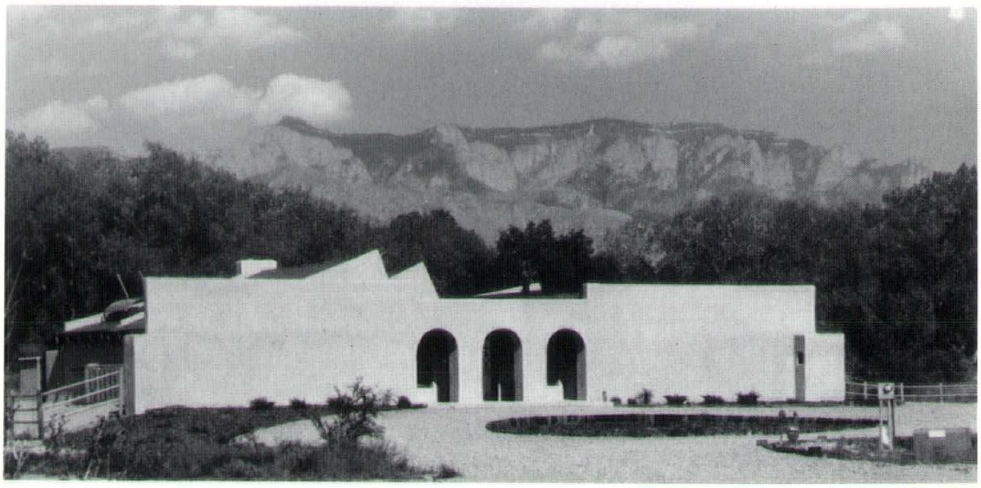
When Jack had compiled our thoughts into architectural working drawings and specifications, we put them out for bid. Jim Bishop Constructions was not the low bidder, but we felt he had the attitude, experience and flexibility we needed to do the job. Groundbreaking occurred on April 1, 1986 and we moved in on December 4, 1986.

There are many unique features in this Spanish-style adobe home. "Foam Forms" stem walls, providing R22 parameter insulation, were placed on the footings and filled with concrete. Air conditioning ducts were laid under the slab with venturis and air dams to direct the flow of air to each room. Hot and cold water lines were wrapped with insulation and buried in the sand. One-inch polystyrene board was covered with a vapor barrier and sand. Before the concrete was poured, EPDM lines (a ruber-like tubing with a ¼" ID) was laid on 6" to 12" centers and tied to the reinforcing mesh. This would serve as the backup radiant heat system.

Sixteen thousand adobe blocks were delivered and the house began to take shape. The solar gains would be stabilized by the mass. The north wall is 14" of adobe plus 4" of rigid polyurethane foam covered with a vapor barrier and Powerwall stucco. The R value is something over 30, depending on how much R value you attribute to 14" of adobe. The east and west walls are 14" adobe blocks with 2" of rigid foam and the Powerwall. The south was left uninsulated. 7"x4'x8', "Tuff Roof" panels were nailed to the 8"x10" wooden beams. Their R value: a claimed 31. Teflon coated 22 gauge steel was fastened in place with neoprene washered screws to complete the roof system. Tar and gravel over 4" of rigid insulation covered the sunspace and passageway roof.

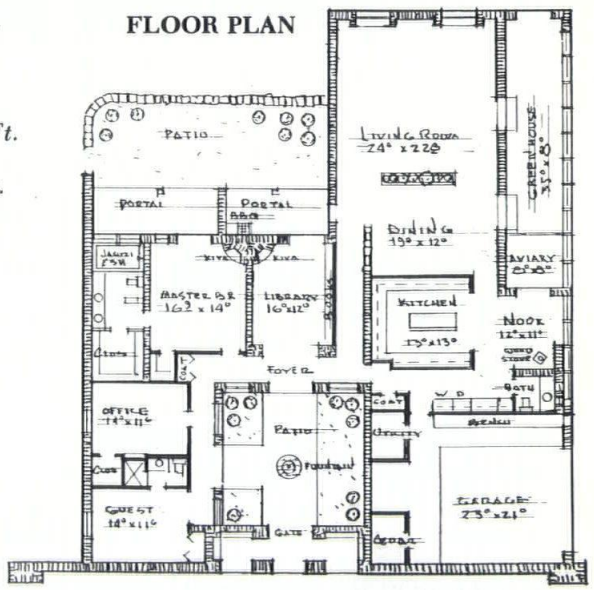
The interior walls are either of exposed adobe covered with a thin coat of gypsum plaster and dry wall mud or hand troweled smooth plaster, except for a few interior frame walls.

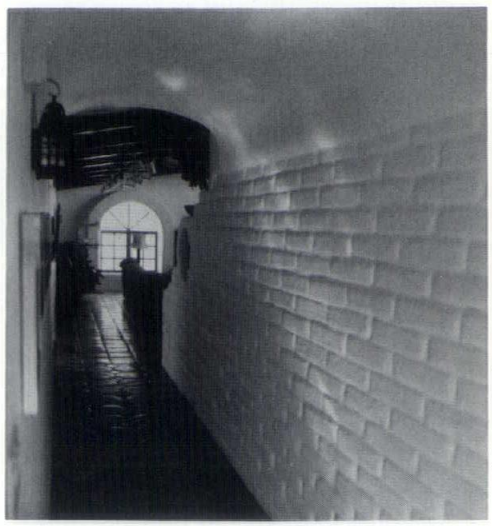
A special feature in our house is a "Santa Fe Wall" sculpted by Paul Chavez of Sculptured Adobe. This adobe wall which divides the hallway from the dining area incorporates a *metate* and a stone wheel into its design. As a trademark, Chavez placed a piece of turquoise in the center of the wheel as a personal symbol of good luck.



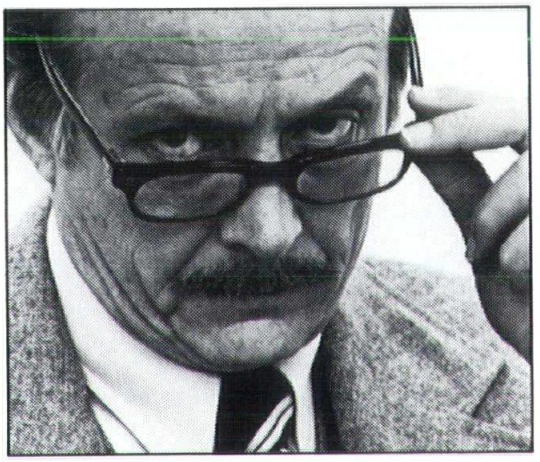
FLOOR PLAN

Heated Area - 3607 Sq. Ft.
Garage & Storage - 732 Sq. Ft.
Patios & Portals - 839 Sq. Ft.
Total - 5178 Sq. Ft.





"Who told you block back-up was more expensive?"



Yes, it looks more expensive than sheet metal studs. It looks more substantial. Block back-up means quality, and quality looks expensive.

Yet, new buildings with brick and block back-up usually cost no more than brick with sheet metal studs . . . sometimes they cost less.

Surprised?

Example: In 1984, the second phase of Chicago Ridge Mall was being bid. The first phase, built in 1981, was built with brick and sheet metal stud back-up. The second phase was designed in the same way. The successful general contractor, Power Construction Company of Elmhurst, Illinois, recognized some very important facts:

- the multiple-trade coordination that is involved with brick and sheet metal studs.
- the credit obtained by eliminating drywall and furring in the plenum and in the shipping and receiving area.
- lower maintenance cost for owner in high traffic areas (no hardboard products needed).
- total cost savings for owner if a brick and block insulated cavity wall was used.

Power Construction asked for a deductive change order for $15,000, if 1" rigid insulation and concrete block back-up would be used in lieu of sheet metal steel studs.

THEY RECEIVED IT!

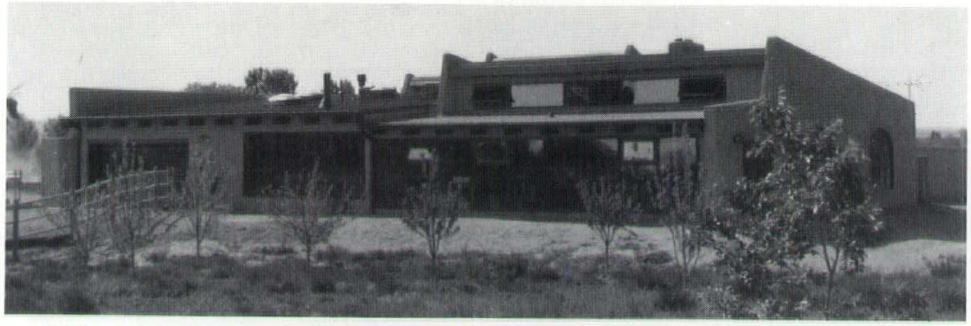
Chances are, whoever told you that block back-up was more expensive, knew something about block back-up. They knew about speed of construction and that block was maintenance-free. They knew block was energy efficient and had good fire ratings and the associated lower annual fire insurance cost. They knew that block had better resale value.

They knew something about block back-up all right, EXCEPT ABOUT ITS PRICE!

Courtesy of

Masonry Advisory Council

MASON CONTRACTORS ASSOCIATION OF NEW MEXICO



Above, the south elevation with garage and greenhouse and, below, the living room.

The clerestory windows were fitted with Andersen remote control electric operators with rain sensors, Their Ford glass contains a UV inhibitor and coating to reduce radiant heat loss. There is 750 square feet of south facing glass on the house including an attached sun space/aviary. The other windows and glassed doors were supplied by Pozzi, including curved top divided light units in the living room, guest bedroom and office. Every room had direct southern exposure. A sun bender over the two operating skylights in the master bath direct the winter sun into that space.

Duncan Malloy built "Count Rumford", high efficiency, masonry, fireplaces into the library and master bedroom.[1] A trombe wall supplies heat for the powder room and breakfast nook. A small, efficient, Lopi wood burning stove sits on the interior side of the wall to supply additional heat to the aviary and kitchen. The floors throughout the house are Saltillo tile.

Interior doors are six panel with Baldwin brass hardware. The front door and one leading to the utility room were custom built of 2" thick mahogany. The ceilings of the passageways are barrel vaulted and plastered. Between the beams on the north wall of the living room we installed clear glass blocks to lighten the massive feeling created by the deep windowsills and arched windows on the room's east wall.

My wife and I both enjoy cooking, therefore the kitchen received special attention. Blue Sky Woodworks of Corrales was contracted to make the solid, wild cherry cabinets. The cooking island is vented under the floor via a duct and outside fan. a gas wok and electric induction cooktop are mounted on the island. Territorial Tiles of Albuquerque made a set of 8" wall tiles depicting local birds and plants. These were interspersed around the back splash. Conveniences such as slide out trays, swing out pantry sections, a large built-in spice rack and appliance garage were incorporated to produce a true "dream kitchen."

With the help of Albuquerque Fan Company we were able to acquire fan kits with ceramic shrouds for each room. The covers were painted by the Pueblo Indians using their unique designs, as were the suspended kitchen and breakfast room lights.

The sun space floor is manganese brick on sand. This brick has the ability to store more heat than ordinary red brick. Two pairs of double doors can be opened to allow the heated air into the living and dining rooms. The transfer of the heated air can be aided by the ceiling fans.

The heated 2-½ car garage with its built-in dog house, insulated garage door and sky lights, has a cedar lined closet for off-season clothes and a mechanical room that contains a 75 gallon gas hot water heater and a small Laars 75,000 BTU low pressure, low temperature boiler, to supply the backup heat to any of the five heating zones. One computer based thermostat controls the heat for the master bedroom and another unit for the master bath. The other three thremostats are conventional bi-metal units.

Before we started construction I had my company engineering department make me a clear plexiglass model of the house. As a photographer, it is easier for me to judge light and shadows from a negative than a print. By covering the windows of the model with black plastic and mounting it on a board with arcs duplicating the sun at the equinox and solstices, I was able to see where the light would fall and how much light/heat I could expect to impact us throughout the year. As a result we positioned the house 15 degrees east of south to take advantage of the morning sun and prevent the late afternoon summer sun from causing overheating. Now you know why this article is called a negative view of solar.

We have lived here for a year now. Everything is working beyond our expectations. We have seen our dream come true.

J.W.

John Wyckoff is president of Intersport Fashions West, Inc., a consulting, marketing and design company headquarters in California. John writes regular articles for trade publications and occasional articles and stories for consumer publications. He conducts sales seminars and motivational programs for industries ranging from recreational vehicle dealers to building contractors both in New Mexico and nationally.

John is an amateur photographer and student of the ancient cultures. He recently moved to New Mexico because it best fits his vocation and avocation. His home reflects his eclectic and esoteric interest.

[1] *Benjamin Thomas (Count Rumford), a Tory from New England was a contemporary of Benjamin Franklin. Count Rumford studied, among other things, fireplaces and their design, from which he developed a whole series of relationships for a proper fireplace design: (1) relationship of height, depth and width, (2) smoke shelf and flue size, (3) how smoke travels and (4) how heat is radiated.*

Renovations of two Mayan-Style Bu

INTRODUCTION

When the exhibition "Maya: Treasures of an Ancient Civilization" arrived in Albuquerque in mid-November 1986, it was accompanied by a number of special events including other exhibitions. At the University of New Mexico, "The Maya Image in the Western World" at the University Art Museum and the Maxwell Museum of Anthropology included drawings and photographs of Mayan buildings, of which the most impressive were two of Carlos Vierra's six murals painted 1913-15 for the Panama-California Exposition in San Diego. This exhibit also incuded pictures of buildings in the United States whose design shows Mayan influence.

Traces of Mayan influence can be found in Albuquerque, and it happened that just at the time of the exhibit, two important Mayan-style buildings in the city were undergoing renovation: Francis Barry Byrne's 1916 Old Chemistry building on the University of New Mexico campus, and George Williamson's 1930 Springer Building on Tijeras next to the railroad.

As renovation projects, as well as diverse examples of the uses of architectural style, the two buildings make an interesting contrast. Old Chemistry (best known in recent years as the Arts Annex), one of the earliest buildings on the historic regional-style campus, was to be preserved and renovated as part of a major complex of new buildings for the Engineering schools. It was a valuable object in an awkward location, presenting the architects with a problem to be solved - a problem which turned out to include a weak and fragile structure. The Springer Building, on the other hand, offered itself as an opportunity. Designed as a warehouse with offices, its solid open structure and handsome brick exterior, as well as its location near Downtown and within a few blocks of other stylish renovations on Central Avenue, made it ideal for renovation as offices.

The renovation architects, Dean and Hunt for the Engineering Complex, and Dekker and Associates for the Springer Building, have provided information and photographs for this article.

THE MAYAN STYLE

There are three general ways in which Mayan style has been integrated into buildings in the United States. In the earliest form, architects trained by the methods of the Ecole des Beaux-Arts of France designed buildings following the classical models of Europe, into which they integrated Latin American design elements decoratively more than architectonically. In the teens of this century, Frank Lloyd Wright and some of his students, and a few architecs in California, saw in Mayan architecture some basic principles of form and use of materials which they incorporated creatively into their own work. And in the era of lavishly decorated movie houses, some notably successful ones use Mayan ornament and pictorial themes to create their rich and exotic atmospheres.

OLD CHEMISTRY

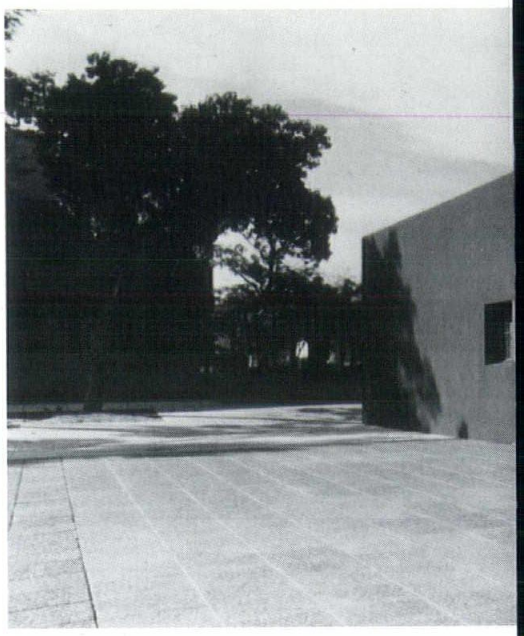
Its Mayan Style

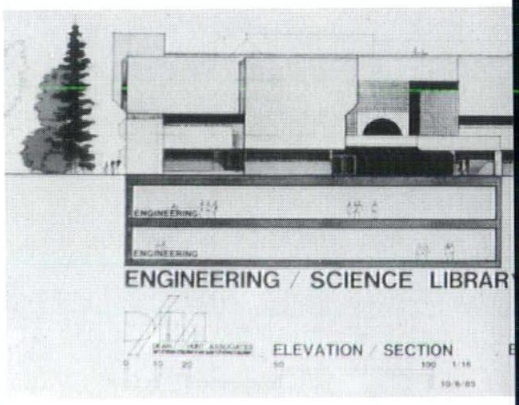
In the early years of the twentieth century, as Frank Lloyd Wright began to work with concrete and explore its qualities of weight, mass, and plasticity, he also incorporated into his work themes which clearly recall Mayan architecture.

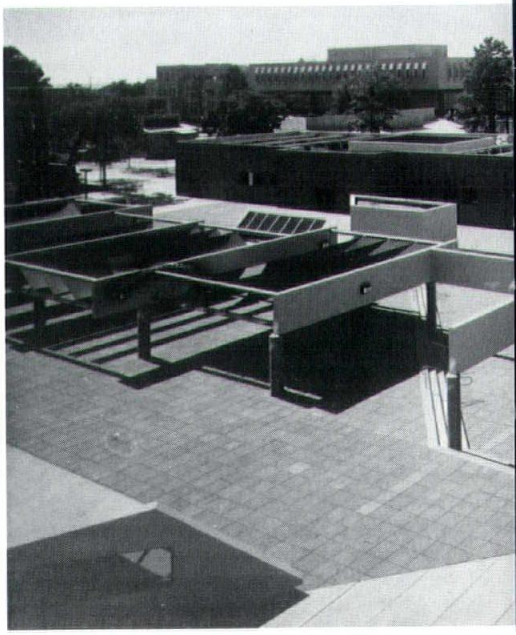
Two students of Wright brought the first Mayan design to New Mexico. Walter Burley Griffin, like Wright, was experimenting with concrete and with forms appropriate to concrete in the early teens. In 1913, when he was renowned as the architect commissioned to design the city of Canberra in Australia, he was engaged to design a master plan for the campus of the University of New Mexico, and visited Albuquerque. Griffin left for Australia in 1914, leaving his practice to Francis Barry Byrne. Both architects executed design drawings for the Chemistry Building, and Byrne's was built in 1916.

Griffin's design for a two-story building divided the facade into three horizontal parts, the upper story being blank and high on the exterior above a middle band in which the windows of the first story, shaded by an ornamented soffit and interspersed with ornamental panels, show the influence of the Mayans' contained horizontal bands of ornament. The lowest horizontal portion of the walls is projected out slightly beyond the upper wall all around, and the entry is deeply recessed. The second level, inside, would have been lighted by a double row of high windows opening on a sort of light well above a lower-ceilinged central corridor - a device which permitted the exterior elevation to present the high smooth crown also distinctly suggestive of the building's Mayan precedents.

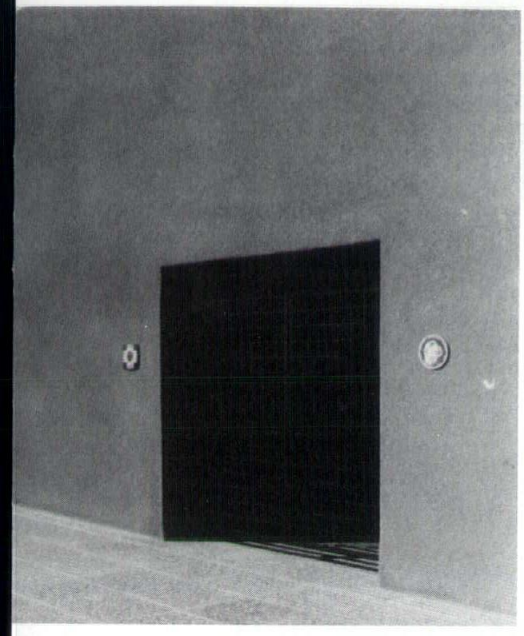
Byrne's one-story building is even more severe: a long low rectangle of unornamented stucco pierced by roof scuppers and by small groups of windows pulled together into horizontal bands by ornamental cast stone panels between the windows. The entrance is pushed forward

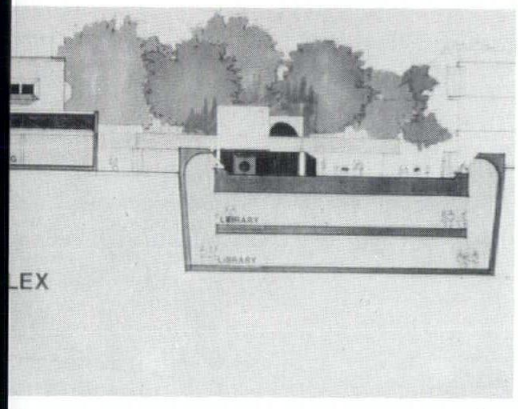






ngs in Albuquerque — By Edna E. Heatherington





and the doorway, protected by a square iron grill, punched into it with a deep shadow. The original design called for an ornamental cast stone coping, but the building as constructed lacks this.

The Building

The original plan of the building included classrooms, smaller laboratories, toilet rooms, and a patio. The high parapet disguises rows of clerestory windows. Over the years, the patio had been roofed over, clerestories covered, and the interior modified until it was a virtual warren of smaller spaces and neglected areas used for storage.

The walls were built of clay tiles without reinforcement. Pan joists had been constructed of concrete in clay tiles, in which the old reinforcement of twisted square bars was not everywhere completely covered. The wood floors had been placed on wood sleepers set directly on the earth.

Byrne's construction drawings, now in the Meem Collection of the UNM Libraries, show ornamental cast stone panels between the windows, as well as the cast stone coping which was never installed. The panels are shown with a sketched, but not detailed, set of abstract designs to be repeated on each panel, loosely based on Mayan or other native American ornamental forms. Two existing panels are of different design, showing symbols of chemistry. Two panels apparently have disappeared over the years without any record.

Severe to the point of barrenness, Old Chemistry still retains a fineness of proportion and a dramatic effect which make it rewarding of study. As a unique example of the work of a well-known architect and as a significant element in the history of the design of the regional-style UNM campus, it clearly deserved preservation and renovation.

The Renovation

The engineering complex required the design of an engineering library as well as clean-room laboratories and classrooms, and the preservation of Old Chemistry. The site was surrounded by other buildings, with the campus distribution tunnels bounding it on both the west and the north.

The design solution was to place two-thirds of the building below grade on two levels, with service to the lowest level via a lift platform and service court, and the historic building, restored to its original function as classrooms, the centerpiece of a pedestrian plaza serving both the internal traffic of the engineering complex and cross-campus traffic. Light monitors bring daylight to all levels.

To restore Old Chemistry, the architects opened the roofed-over patio and the clerestories. The interior spaces were returned to use as classrooms, with new toilet rooms in the original locations. New heating and lighting systems are exposed under the clerestories, and new exits were added to conform to current building codes.

Although the design restoration was simple and clear, the structural repairs were a preservationist's nightmare. The walls were pulled together with a "structural skin" of reinforced cementitious coating, and the roof joists reconstructed. Drilled piers were added to the underpinnings. The rotted wood floors were completely replaced. New doors and frames were installed, but the dramatic shadowy entrance door with its iron gate was restored.

To emphasize the unique historic building in the midst of the new building group, the color of the new modified stucco is a darker shade than the buff of the new buildings. The texture was made to match that of the original stucco. Now the crisply restored little building stands in the center of its new plaza, not elevated as its models were, but surrounded at a respectful distance by the new buildings. It is showcased as a museum piece, situated so that it can be studied from all sides, and at the same time it is restored to its original usefulness, with its enclosed patio and daylighting intact.

Top: The renovated facade of Old Chemistry. One of the cast stone panels is visible between the windows beyond the projected entrance. (Photo by Douglas Kahn.)

Center: Section, showing how Old Chemistry stands at the center of a new pedestrian plaza with new laboratories and library set underground to leave the site open. Beyond, to the north, another building in the new complex encloses the plaza.

Bottom: Old Chemistry, clad in a darker color than the new buildings of the Engineering Complex, seen from a nearby building. The tightly grouped windows are close to the projected entrance on each side. The clerestories which bring floods of daylight to the interior are visible behind the parapet. In the left distance is Farris Hall. (Photo by Douglas Kahn.)

The south facade of the Springer Building. The concrete railings are part of the Tijeras Street underpass. The awnings and pipe railings are new, but otherwise the facade is as it was built in 1930. The Greek key is incised on the cast stone fillet under the upper windows. (Photo by Robt. Ames Cook.)

THE SPRINGER BUILDING

The Mayan "Motif"

In 1976, talking with a graduate student about the ideas that shape the forms of buildings, the Albuquerque architect John Ginner mentioned the 1930 Springer Building, and said, "That's a Mayan motif - hmph! - don't look Mayan to me." The interviewer's first reaction was to ask why the designer, George Williamson, had chosen that motif. Ginner thought he'd "wanted something different for an indifferent site."

In 1930, Williamson and his chief designer, William Miles Brittelle, were conservative eclectic or "Beaux-Arts" practitioners. They did not aim to create a replica of a Mayan building, nor had they closely studied Mayan buildings as new models of architectonic composition. Their building follows classical models of European origin in its general symmetry, centrally placed main entrance, and orderly rows of windows.

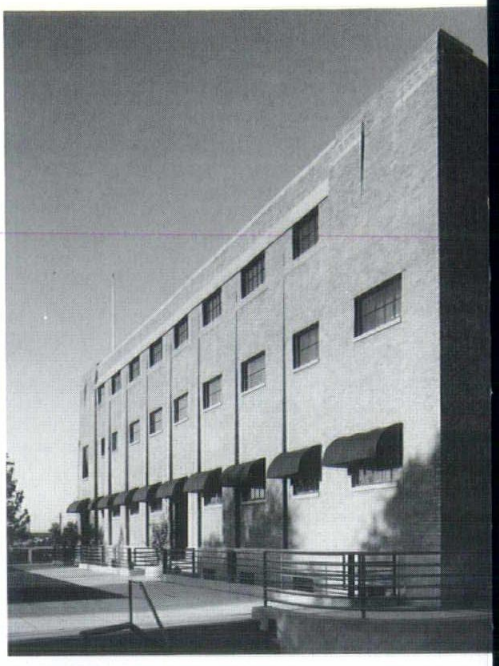
But the elements which we can recognize as special and unusual do give the Springer a distinctive appearance, most prominently the battered parapet with its elaboration of battered pilasters at the corners. This doesn't really resemble any Mayan example, except to the extent that it suggests the steps of pyramids, or the crumbling of ruined parapets; but it does call our attention to the fillet of cast stone incised with the "Greek key" pattern also found in Mayan ornament and decoration.

The stepped outline of the cast stone around both the main doors, and the pair of doors at the east end of the south facade, is a clearer reference to the monumental steps of temples, and also suggests, in reverse, the corbels with which Mayan doorways were constructed. The keystone above the main entrance, of course, contradicts the reference to corbelled arches.

The primary reason for recognizing the Springer as Mayan is that it does have a "different appearance," and John Ginner, though unconvinced of the success of the motif, clearly recalled that Mayan was the selected style.

Other characteristics of the Springer Building

The Springer Building was designed for the Springer Transfer Co., as a warehouse with offices. It fronts on Tijeras Avenue, which in 1930 crossed the railroad at grade, but which later in the thirties was excavated to go under the railroad. The west side of the building has a covered loading dock on the first floor, immediately on the railroad yard. Another loading dock extended along the north side of the building, where trucks had access. The materials, ornament, and finish are unusually fine for a warehouse. Handsome cream-colored, textured brick laid in colored mortar along the east, south, and



Top: The Springer Building's east facade, on Commercial Avenue. Steps down to the new two-level entrance are in the foreground. (Photo by Robt. Ames Cook.)

Bottom: The north facade of the Springer Building is marked by the haunches of the concrete columns, designed to carry the framing of the next bay in a future addition. The bays are filled in with glazing to show the structural frame, and the canopy is designed to suggest the old truck loading dock, while sheltering the new main entrance facing the parking court. The sheltered lower court is almost visible. (Photo by Robt. Ames Cook.)

west facades. The north facade, where the existing structure was designed for future additions, the bays were filled in with clay tiles. The haunches at the tops of the concrete columns protrude from this north wall, awaiting the addition of the next bay.

The Renovation

This building, with its handsome appearance; solid, open concrete frame; sited within an easy walk of the Central Business District and adjacent to the actively redeveloping area at Central and Broadway; and with another similarly promising warehouse in the same block, offered itself as a prime opportunity for redevelopment as offices. It was placed on the National Register of Historic Places in 1980, and was renovated subject to stringent regulations and reviews.

This renovation was coordinated with that of the J. S. Brown Mercantile Building, a warehouse immediately adjacent to the old warehouse yard on the north. The yard was made a parking court, with entrances, views, and connecting walkways to make the two buildings work together as a group. Brown Mercantile has its own parking lot and main entrance on its north side, and the two buildings are separately owned.

On the north, the rough infill of clay tiles was removed and replaced with glazing designed to expose and enhance the appearance of the concrete frame, as well as to admit north daylight. The architect's original scheme, to add a dramatic glass-enclosed entry vestibule and stairway on the north, was not permitted by the Park Service; instead, they required that the north facade have some design element recalling the original truck loading dock. The main entry has been provided with steps and ramps to a sheltered court and entrance to the lowest level, and the new stairs were added inside the building.

On this half-basement level, the original small windows have been enlarged with the addition of wells, so that light is brought into the floor from every side. Above, existing windows, which were original, have been refurbished or replaced with matching units, and backed up with matching sash and glazing on the newly insulated interior. Additional daylight is brought to the central areas of all the floors in light wells of glass block, and on the third floor, where an existing freight elevator was removed, a skylight enhances a large area of the northwest corner of the space.

The Springer offered three well designed and finished facades, a solid structure, and the opportunity of large open spaces and sources of light. In its new incarnation, it remains itself, distinctly of its period and recognizably "Mayan", while welcoming the luxury and glamor of its new glazing, enhanced windows, and dramatized two-level entry.

CONCLUSION

Despite the magnificence and originality of Mayan architecture, and its place as one of the great building traditions of the world, its influence on United States building design has been slight. It is just a pretty coincidence that these two renovations coincided with the exhibit of Mayan art in Albuquerque. Simple and slight as the "Mayan" elements are in the two designs, this stylistic link is enhanced and made evident by the effort to preserve each building, and through their preservation we are allowed to observe the "motif" as transformed first by the old eclectic tradition and then as assimilated in designs seeking new architectonic solutions.

E.E.H.

The parking court includes a pedestrian connection to the next building, another warehouse renovated for offices. (Photo by Robt. Ames Cook.)

The author:
Edna E. Heatherington, CSI, CCS, is a local historian, information manager, and technical writer in Albuquerque. She is Manager of Specifications for Brown Burton and Partners, Architects.

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Peter Briggs, editor, *The Maya Image in the Western World*, catalogue of exhibit at the University Art Museum and the Mexwell Museum of Anthropology, The University of New Mexico, Albuquerque, New Mexico, 1986.

Credits for the building projects:

Old Chemistry
- Owner: University of New Mexico
- Architect: Dean and Hunt/W.C. Kruger and Associates
- Civil Engineer: Tom Mann
- Structural Engineer: Randy Holt
- Mechanical Engineer: Bridgers & Paxton
- Electrical Engineer: Uhl & Lopez
- Contractor: Page and Wirtz
- Photographs: Douglas Kahn (exteriors)

Springer Square
- Owner: Albuquerque Properties, Inc.
- Architect: Dekker and Associates
- Structural Engineer: Randy Holt
- Mechanical Engineer: Four Seasons
- Electrical Engineer: Allied
- Interiors: Perspectives
- Contractor: Better Living
- Photographs: Robt. Ames Cook

How Infloor Is Changing The Way America Heats Its Homes

For years the standard home heating system has been a forced-air furnace. This method, however, lacks energy efficiency and provides heat that's uncomfortable. Now there's a better alternative.

Unlike conventional systems that circulate warm air, a radiant floor transfers heat directly. With such a large "radiator" the floor provides a much higher quality heat than a forced-air register or a baseboard unit. This heating method is widely used in Europe. In fact, more than 60% of the homes in Scandanavia, Germany and France have radiant floor heating. And it's use in this country will grow, thanks to the new made-in-American Infloor Heating Systems.

How radiant floor heating works

As its name implies, the floor heats a home. With the Infloor systems, hot water tubing or electric cables are embedded in a thermal mass of Gyp-Crete 2000 Infloor Blend Floor Underlayment. Warm water circulating in the tubing (or electrical resistance in the cable) transfers heat to the Gyp-Crete 2000. This thermal mass then silently radiates heat to the entire home. The floors never become hot, just pleasantly warm.

Why radiant floor heat outperforms conventional systems

Modern radiant floor heating is unsurpassed. Radiant floor heat (Like heat from the sun) is not carried by air currents. So there are no drafts or hot-air surges that hamper forced-air systems. Baseboard heating also depends, to some degree, on this principle of circulating air. As a result, radiant floor heat is more comfortable, less noticeable.

Radiant floor heat reduces energy expenses

Radiant heat is uniform with little or no temperature difference between the floor and ceiling. That makes for increased heating system efficiency. And because hot air doesn't collect at the ceiling where it is most likely to escape, a radiant floor system can reduce heat loss by up to 25%.

What's more, Infloor systems warm people not just air, so occupants are comfortable at lower temperature settings. That's important because home owners and businesses can save 3% on their heating bill for every degree they lower their thermostat. Overall, radiant floor heat costs form 15% to 20% less to operate when compared to conventional systems.

Dust-free heat

Radiant floor systems eliminate the blowing of dust and allergens into a room. The common throw-away filters of a forced-air system remove only a small percentage of these contaminants. The remainder are carried through the cold-air return and blown out again through the heat registers.

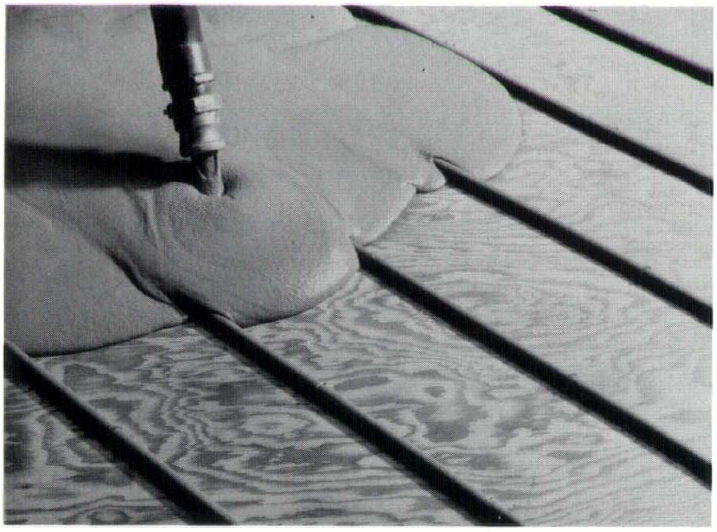
Another benefit is the ability to create separate zones of heat. For example, rooms facing north can be heated to a higher temperature without overheating the rest of the home.

How Infloor made radiant heat better

First of all, Infloor developed separate hot water and electrical systems. So there's the freedom of choice for the home owner. Obviously, local energy costs also influence the decision.

But Infloor took systems versatility much further. Infloor specially designed its hot water system for use with virtually any heat source. This system can be connected to boilers, heat pumps, solar collectors, water heaters...any heat source that can deliver water up to 190°F.

Sound controlling, fire resistant Gyp-Crete 2000 completely encases the Infloor hot water tubes for uniform transfer of heat.



Hot water tubes are first stapled to the floor. They're then covered with a layer of Gyp-Crete 2000 Infloor Blend.

Water from the primary boiler "loop" is mixed with water in the "secondary" Infloor loop to maintain the desired floor temperature. This water is circulated through the various tubes in the floor. The zone control unit is placed within a wall cavity in an easily accessed, but out-of-the-way location. The back of a closet works well.

There are less controls for the electric Infloor system. In fact, the only evidence of a heating system is the wall thermostat. Both Infloor systems can be installed over concrete slabs or typical joist-supported wood floors.

Infloor increases design creativity

With Infloor, the basement has no furnace or unsightly duct work. An Infloor basement is open and totally available for living space. And home owners can use the same hardwood flooring and tile as the rooms above.

With either Infloor system, there are no heat registers or cold-air returns. There's nothing in the Infloor system that interferes with the placement of interior furnishings.

Simplified installations

Many contractors have avoided radiant heat systems because of complex system engineering. Not anymore. Infloor Heating Systems publishes design and installation guides that greatly simplify this preliminary work. For example, easy-to-follow charts help the contractor determine zone size and floor heat output.

The ideal thermal mass

Gyp-Crete 2000 Infloor Blend floor underlayment is the only thermal mass recommended for use with the two Infloor systems. One reason is because it's the thinnest thermal mass available. Gyp-Crete 2000 is poured to a depth of 1 inch over the electric cables; 1¼ inches over the hot water tubing. A thin thermal mass will begin to heat a room more quickly. So the need for expensive outside temperature sensing devices has been eliminated.

Gyp-Crete 200 brings other benefits to a home, too. It's a non-combustible gypsum underlayment used instead of plywood or particle board. Gyp-Crete 2000 won't warp or delaminate. And squeaks and nail pops—common complaints with wood underlayments—are reduced dramatically.

Gyp-Crete 2000 flows into the opening where the wallboard meets the floor. The result: an impervious flame barrier at the base plates. This barrier also reduces sound transfer between rooms and connecting units. And it keeps out insects, blocks air infiltration along the floor.

The underlayment dries to create an exceptionally smooth surface that extends the life of floor goods, particularly resilient flooring. Carpet, tile, wood, vinyl...virtually any floor covering can be attached to Gyp-Crete 2000.

Most American consumers and even many heating contractors may find this type of heating highly unusual. However, Europeans, particularly the Swedish, have been promoting the benefits of radiant floor heating for years.

The Swedish Housing Group has recognized the superiority of the hot water Infloor system. Their factory-built homes are exclusively designed for radiant floor heating. This group's suburban Minneapolis model home, for instance, is heated by a 95% efficient forced-ventilation boiler and four Infloor zone control valves.

Radiant floor heating — it's a simple idea whose time has come.

Infloor Heating Systems are available through Brekke Distributors in Dallas. (See advertisment page 4.)

DIRECTORY OF HISTORIC NEW MEXICO ARCHITECTS TO BE COMPILED

An editorial board of three architectural historians — Boyd C. Pratt, Carleen Lazzell, and Chris Wilson — have recently received a grant from the College of Fellows Fund of The American Institute of Architects to develop a Directory of Historic New Mexico Architects. The Directory will contain information on architects practicing in New Mexico during the Territorial (1846-1912) and Statehood (1912-present) periods until 1945.

The Directory will consist of alphabetically arranged entries on all known architects. Each entry will include information on vital statistics (dates of birth and death, education and training, professional affiliations, and addresses), history of the architect's firms or firms they worked for, history of their career, including major commissions, and locations of their archival records and published information sources. An introductory essay will discuss the history of architectural practice in New Mexico.

Those who wish to submit an individual entry or provide information on specific architects should write for a table of contents and guidelines for submission to: Boyd C. Pratt, Project Manager, Directory of Historic New Mexico Architects, 1111 Barcelona Lane, Santa Fe, N.M. 87501; (505) 983-1024.

Professional Directory

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